Standards/Measurement Criteria (**Draft)
Graphic Communications
Graphic Arts - Option A
CIP No. 10.0300

*These state standards are designed to be delivered in a sequence of courses. *Standards 1-17 are to be taught as an introduction within the Graphic Communications program.
**Please note: The following CTE program Standards/Measurement Criteria are tentative until assessments are established.

*1.0 EXPLORE CAREER PATHS IN GRAPHIC COMMUNICATIONS
1.1 Examine traditional, non-traditional and entrepreneurial occupational choices
1.2 Review graphic communications career opportunity information
1.3 Explain how personal choices affect career plans
1.4 Relate interests, skills and attitudes to career exploration in graphic communications
1.5 Examine the role of education in careers in graphic communications

*2.0 DEMONSTRATE JOB SEARCH SKILLS
2.1 Research employment opportunities in graphic communications
2.2 Critique a job application on line and in hard copy
2.3 Review professional dress, interviewing skills and resumés
2.4 Demonstrate the use of technology in a job search
2.5 Explore creative ways to make an impression in addition to a resumé
2.6 Explain steps in job search strategies

*3.0 DEMONSTRATE EMPLOYABILITY SKILLS REQUIRED FOR THE GRAPHIC COMMUNICATIONS INDUSTRY
3.1 Identify factors contributing to job success
3.2 Practice teamwork for a graphic communications environment
3.3 Demonstrate work ethics and behavior
3.4 Identify factors that contribute to successful performance at work
3.5 Discuss how social skills are helpful in obtaining and maintaining a job
3.6 Practice the use of technology as related to occupations in graphic communications
3.7 Discuss elements of professionalism
3.8 Examine skills needed for changing workforce demands

*4.0 PRACTICE EFFECTIVE COMMUNICATION SKILLS FOR THE GRAPHIC COMMUNICATIONS WORKPLACE
4.1 Interpret verbal and nonverbal communication
4.2 Identify barriers to effective communication in a graphic communications environment
4.3 Practice skills used to communicate with clients in a graphic communications workplace
4.4 Identify guidelines for effective written communication in letters, memos, reports and email
4.5 Recognize and adapt to language barriers, ethnicity and gender in a graphic communications environment

*5.0 PARTICIPATE IN LEADERSHIP ACTIVITIES SUCH AS THOSE SUPPORTED BY CAREER AND TECHNICAL STUDENT ORGANIZATIONS SUCH AS SkillsUSA

5.1 Determine the roles and responsibilities that leaders and members bring to a graphic communications organization

5.2 Identify various leadership and personality styles

5.3 Evaluate characteristics of an effective team player in a graphic communications workplace

5.4 Identify characteristics of effective teams and teamwork

5.5 Practice techniques to involve each member of the team

5.6 Participate in graphic communications career development events

5.7 Develop a personal and professional growth plan

5.8 Demonstrate business etiquette and networking skills

5.9 Practice decision-making process

*6.0 EXPLORE PROBLEM SOLVING AND DECISION MAKING PROCESSES TO GRAPHIC COMMUNICATIONS SITUATIONS

6.1 Practice problem-solving processes for a graphic communications environment

6.2 Describe methods of establishing priorities for a graphic communications workplace

6.3 Examine a plan of work and schedule

6.4 Identify need for evaluation of products/services

*7.0 DEMONSTRATE TECHNOLOGICAL LITERACY FOR THE GRAPHIC COMMUNICATIONS INDUSTRY

7.1 Examine the uses of technology in the graphic communications field

7.2 Demonstrate basic usage of computers (input, storage, output)

7.3 Access information electronically (via Internet, CD-ROM, etc.)

7.4 Apply basic commands of operating system software

7.5 Apply appropriate file and disc management techniques

7.6 Understand the basics of graphics software

*8.0 REVIEW FINANCIAL RECORDS AND ACCOUNTS FOR A GRAPHIC COMMUNICATIONS ORGANIZATION

8.1 Review an annual graphic communications business budget

8.2 Explain checking account records

8.3 Explain accounts payable and accounts receivable

8.4 Review expense records

8.5 Review payroll records/information

8.6 Explain project estimating

*9.0 EXPLORE THE THEORY AND PRACTICE OF GRAPHIC COMMUNICATIONS

9.1   Explore how planning is used to improve overall organizational performance

9.2   Use organizational charts to identify workplace operations of a graphic communications business and/or department within an organization

9.3   Review how plans and budgets are revised to meet goals and objectives within an organization

*10.0 EXPLORE THE LEGAL AND ETHICAL ENVIRONMENT OF THE GRAPHIC COMMUNICATIONS INDUSTRY

10.1   Explore the basic concepts involved in contract law, consumer law and consumer credit protection

10.2   Examine the relationship between ethics and the law for the graphic communications industry

10.3   Define ethical standards

10.4   Examine the problems related to maintaining ethical standards in situations without a clear standard

10.5   Identify steps for securing permission to use copyrighted materials

10.6   Discuss how credit is given for use of copyrighted materials

10.7   Identify the benefits of copyright laws

10.8   Review the liabilities associated with the graphic communications field

*11.0 EXPLORE MARKETING PRINCIPLES FOR GRAPHIC COMMUNICATIONS OPERATIONS

11.1   Identify target markets

11.2   Select products or services to link with customer requirements

11.3   Identify strategies for promoting products/services

*12.0 PRACTICE SAFE WORKING PROCEDURES FOR A GRAPHIC COMMUNICATIONS ENVIRONMENT

12.1   Explain appropriate safety precautions around common graphic communications job-site hazards

12.2   Explain the importance of the OSHA (Occupational Safety and Health Administration) standards, HazCom (Hazard Communication Standard) requirements and MSDS (Material Safety Data Sheets)

12.3   Recognize and demonstrate safe use of basic hand tools and chemicals for a graphic communications workplace

*13.0 DEMONSTRATE DRAWING AND VISUALIZATION SKILLS REQUIRED FOR GRAPHIC COMMUNICATIONS

13.1   Identify and analyze composition elements

13.2   Employ various types of drawing media and surfaces in traditional and digital form used in a graphic communications environment

13.3   Illustrate the basic elements and principles of design using traditional and digital media

13.4   Analyze how content and meaning are communicated in media production

13.5   Apply fundamentals of color theory in traditional and digital media

*14.0 PRACTICE MEASUREMENT TECHNIQUES FOR GRAPHIC COMMUNICATIONS APPLICATIONS

14.1   Identify common measurement tools used in graphic communications and their functions

14.2   Select an appropriate measurement technique for a specific measurement need

14.3   Select and use the appropriate measurement tool for the task

14.4   Determine degree of accuracy required for a specific task or situation

*15.0 INPUT DATA FOR MEDIA APPLICATIONS

15.1   Demonstrate the operation of hardware items that support data capture for media application software including scanner, digital camera, video input device, graphics tablet and graphics expansion

15.2   Select resolution for media data capture

15.3   Capture still images

15.4   Capture text and numeric data

15.5   Archive and manage data for a variety of media application software

*16.0 OUTPUT DATA FROM MEDIA APPLICATIONS

16.1   Demonstrate the operation of hardware items that support data output from media application software such as printer, projector, etc.

16.2   Optimize data output for specific uses

16.3   Output still images

16.4   Output text and numeric data

*17.0 CREATE DIGITAL MEDIA PRODUCTS

17.1   Select and communicate information in an appropriate digital format

17.2   Select appropriate productivity tool for solving a specific problem

17.3   Produce a multi-page product for print and digital distribution

17.4   Design, produce and evaluate a communication product using technology

17.5   Combine images, sound, text and visual transitions in a single production

17.6   Use computer-based tools to create printed media products

18.0 DEVELOP AN INDIVIDUAL CAREER PLAN FOR THE GRAPHIC COMMUNICATIONS INDUSTRY

18.1   Investigate graphic communications career options including freelance and entrepreneurship

18.2   Develop career goals based on interests, aptitudes and research

18.3   Review and revise plans/goals on annual basis

18.4   Manage personal and career goals

18.5   Describe factors that contribute to job satisfaction and success

19.0 PREPARE FOR EMPLOYMENT IN THE GRAPHIC COMMUNICATIONS INDUSTRY

19.1 Develop a résumé
19.2 Create an e-résumé
19.3 Develop an electronic and traditional portfolio of work samples to support a résumé
19.4 Complete job application process
19.5 Research graphic communications companies as potential employers
19.6 Demonstrate interviewing skills, including pre-interview preparation and post-interview follow-up

20.0 PARTICIPATE IN GRAPHIC COMMUNICATIONS WORK-BASED LEARNING EXPERIENCES

20.1 Use technology appropriate for the job
20.2 Demonstrate positive work behaviors
20.3 Demonstrate positive interpersonal behaviors
20.4 Demonstrate safe and healthy work behaviors
20.5 Adapt to changes in the workplace
20.6 Participate in a variety of work-based experiences, paid or non-paid

21.0 DEMONSTRATE ORAL COMMUNICATION SKILLS APPLICABLE TO THE GRAPHIC COMMUNICATIONS FIELD

21.1 Conduct formal and informal research to collect appropriate topical information
21.2 Use questioning techniques to obtain needed information from audience
21.3 Interpret oral and nonverbal communications of audience
21.4 Demonstrate active listening during communications
21.5 Demonstrate appropriate use of technologies for a formal presentation
21.6 Prepare and deliver presentation
21.7 Deliver presentation incorporating the appropriate verbal and nonverbal communication techniques
21.8 Demonstrate effective telephone technique

22.0 DEMONSTRATE WRITTEN COMMUNICATION SKILLS APPLICABLE TO THE GRAPHIC COMMUNICATIONS FIELD

22.1 Conduct formal and informal research to collect appropriate topical information
22.2 Organize information and develop an outline
22.3 Write business communication using appropriate format for the situation
22.4 Using appropriate technology, prepare draft document using established rules for grammar, spelling and sentence construction
22.5 Utilize multiple technologies for written and presentation communications

23.0 EVALUATE THE ROLE OF SMALL BUSINESSES INCLUDING FREELANCE GRAPHIC COMMUNICATIONS IN THE ECONOMY

23.1 Evaluate the role of small graphic communications business on local, state, national and international economies

23.2 List the factors, including personal traits, which contribute to the success of a graphic communications small business

23.3 Compare and contrast the advantages and disadvantages of sole proprietorships, partnerships and corporations

23.4 Research a business plan of an existing graphic communications business

23.5 Analyze the relationship of customer service and customer satisfaction on the success of a business

24.0 DEMONSTRATE BUSINESS AND FINANCIAL MANAGEMENT PRACTICES NEEDED FOR FREELANCE ARTISTS AND ENTREPRENEURS

24.1 Evaluate a budget based on an existing enterprise's business plan

24.2 Review financial information for decision making and planning

24.3 Research insurance and benefit needs for a graphic communications business

24.4 Describe the impact of quality business communications on the success of an organization

25.0 PARTICIPATE IN LEADERSHIP ACTIVITIES SUCH AS THOSE SUPPORTED BY CAREER AND TECHNICAL STUDENT ORGANIZATIONS SUCH AS SkillsUSA

25.1 Determine the roles and responsibilities that leaders and members bring to an organization

25.2 Evaluate characteristics of effective teams

25.3 Evaluate characteristics of an effective team player

25.4 Practice techniques to involve each member of the team

25.5 Demonstrate teamwork

25.6 Practice effective meeting management

25.7 Demonstrate business etiquette

25.8 Practice decision-making process

26.0 USE PROFESSIONAL BUSINESS SKILLS OF THE GRAPHIC COMMUNICATIONS INDUSTRY

26.1 Identify education and training required to work in various graphic communications careers

26.2 Identify markets and types of businesses in graphic communications

26.3 Use industry terms and vocabulary in appropriate context

26.4 Investigate works of respected designers and photographers

26.5 Critique art and design work for technique, content, aesthetics, use of materials and problem solving

26.6 Use professional practices of graphic communications industries

26.7 Integrate customer relations skills in face-to-face and electronic communications

26.8 Create and present a professional portfolio

27.0 PRACTICE LEGAL AND ETHICAL BEHAVIOR REQUIRED FOR THE GRAPHIC COMMUNICATIONS INDUSTRY

27.1 Model ethical conduct in what is written, spoken or presented in a visual manner

27.2 Explain copyright law, work-for-hire, and other accepted business practices applicable to a graphic communications workplace

27.3 Differentiate stock photography and royalty free internet and print materials

27.4 Evaluate the need for signed release forms

27.5 Explain procedures for the use of proprietary information

27.6 Practice an appropriate work ethic

28.0 PRACTICE SAFETY RULES AND PROCEDURES FOR THE GRAPHIC COMMUNICATIONS WORKPLACE

28.1 Follow approved shop dress code for safe operation, including personal safety equipment

28.2 Comply with OSHA safety regulations and practices

28.3 Understand approved methods to dispose of waste materials

28.4 Locate and read Material Safety Data Sheets (MSDS)

28.5 Follow safety procedures when operating graphic communications equipment

28.6 Read and follow instructions on warning labels

28.7 Demonstrate a working knowledge of the safety color code

28.8 Explain the right-to-know law

29.0 MANAGE BASIC COMPUTER CONCEPTS, OPERATIONS, AND APPLICATIONS

29.1 Use digital image preparation and output equipment

29.2 Use basic electronic publishing equipment

29.3 Apply basic commands of operating system software

29.4 Apply file and disk management techniques

29.5 Use industry-accepted software applications for word processing, graphics, image editing, scanning and page layout

29.6 Access and use the Internet for file transfer

29.7 Differentiate terminology referring to input, screen and output resolution

29.8 Optimize files for digital or print output

30.0 APPLY MATHEMATICAL CONCEPTS TO PROBLEMS IN GRAPHIC COMMUNICATIONS

30.1   Use measurement systems common to the graphic communications industry
30.2   Use measurement tools common to the printing industry
30.3   Solve graphic measurement conversion problems
30.4   Solve ratio and proportion problems
30.5   Solve paper cutting problems

31.0 APPLY PRINCIPLES OF JOB PLANNING AND LAYOUT TO GRAPHIC COMMUNICATIONS CUSTOMER SPECIFICATIONS

31.1   Sequence the production work flow from initial need to a final product
31.2   Practice customer service functions
31.3   Explain the production information on a job ticket/jacket
31.4   Prepare a production information job ticket/jacket
31.5   Practice questions to understand client needs
31.6   Follow instruction to produce, modify or output files according to a customer supplied criteria

32.0 DEMONSTRATE DIGITAL IMAGE PREPARATION

32.1   Produce digital images using digital image capture equipment
32.2   Import a scanned image or digital camera photo into a digital imaging application
32.3   Select resolution, pixel depth and image type for scanned images
32.4   Select appropriate commands and menus of scanning software
32.5   Select appropriate commands, menus and palettes for a digital imaging application
32.6   Create a digital image according to specifications using an imaging application
32.7   Enhance digital images using painting and editing tools
34.8   Edit a digital image using editing, filtering, multiple layers and masking techniques
32.9   Apply principles and elements of design to digital image processing
32.10   Apply color theory to digital image processing
32.11   Differentiate RGB, CMYK, LAB color, grayscale and web color
32.12   Convert file formats
32.13   Optimize digital images and select file formats as specified for end-use requirements
32.14   Select appropriate mode and resolution for digital or print output

33.A INTEGRATE THE PRINCIPLES AND ELEMENTS OF DESIGN IN GRAPHIC APPLICATIONS

33.1a   Apply principles and elements of design in production
33.2a   Create a design for commercial application including print collateral, logo and direct mail
33.3a   Create a design according to specifications
33.4a   Enhance a design using manipulated type or special effects type
33.5a   Select appropriate commands, menus and palettes for a graphics application
33.6a   Enhance a design using editing, filtering, multiple layers and masking techniques in a graphics application

34.A APPLY COLOR PRINCIPLES TO THE PREPARATION, PRODUCTION, EVALUATION, AND CORRECTION OF COLOR PRINTING

34.1a Apply color theory to digital image processing

34.2a Differentiate RGB, CMYK, LAB color, grayscale and web color as it relates to the printing industry

34.3a Produce and print color separations for both spot and process color (CMYK) design projects

34.4a Use an ink color chart to prepare inks for printing

34.5a Prepare a color proof

34.6a Produce single color and multi-color jobs on various substrates

34.7a Evaluate proofs on single and multi-color jobs for color quality, close register work and trapping

35.A APPLY BASIC KNOWLEDGE OF ELECTRONIC PUBLISHING

35.1a Flow copy from word processing program to page layout program according to job specifications

35.2a Set text with appropriate margins, formatting, gutters, leading, headings, trims and folds

35.3a Place an image in a page layout document

35.4a Select typography/fonts for style, size and format to solve a problem

35.5a Typeset letter, word and line spacing to enhance layout

35.6a Proofread document

35.7a Prepare document for press indicating bleed, color breaks, image details, varnish areas, etc.

35.8a Create a multi-page publication to specification using an electronic publishing application

35.9a Output files in PDF format

36.A PERFORM IMAGE ASSEMBLY AND PLATEMAKING

36.1a Identify and explain the use of image assembly equipment, materials, hand tools and supplies

36.2a Create a composite or mock up

36.3a Demonstrate appropriate proofing methods and marks

36.4a Review the use of platemaking equipment and tools

36.5a Explain the procedures for making metal, photo direct or electrostatic plates

36.6a Use exposure control devices

36.7a Produce a plate for offset printing

37.A ANALYZE THE PRIMARY COMPONENTS, PRINCIPLE FUNCTIONS AND PURPOSES OF DIFFERENT PRINTING PROCESSES (E.G., LITHOGRAPHY, SCREEN, ETC.)

37.1a Summarize the process steps in each of the major printing processes

37.2a Explore the tools and equipment used in each of the major printing processes

37.3a Compare the advantages and disadvantages of each major printing process

37.4a Identify the market segments of each major printing process

37.5a Identify the products produced by each major printing process

38.A PERFORM BASIC PRESS OPERATIONS TO PRODUCE MULTICOLOR PRINTED MATERIAL

38.1a Set up a press for a printing run
38.2a Operate the inking system
38.3a Manage press chemistry which includes ink tack, fountain solutions, solvents, dryers, etc.
38.4a Select paper for a job analyzing parent sizes, grain direction, grades and classes and reading a paper swatch
38.5a Operate a press
38.6a Print and maintain register
38.7a Demonstrate the ability to maintain and troubleshoot common operating problems on a printing system

39.A DEMONSTRATE BASIC FINISHING AND DISTRIBUTION

39.1a Set up, adjust and operate a paper cutter
39.2a Set up, adjust and operate a paper folder
39.3a Set up and operate a stitcher
39.4a Set up, adjust and operate a paper drill
39.5a Demonstrate proper hand folding techniques
39.6a Compare binding processes and techniques
39.7a Explain saddle stitching and perfect binding
39.8a Demonstrate adhesive binding
39.9a Assemble "carbonless" paper forms